



# Maryland Classroom

## The Classroom Learning System



**Susan P. Webster**  
Special Education, Grades K-5  
Northwestern Elementary School  
Wicomico County

The Classroom Learning System, built upon the Baldrige Criteria and principles of continuous improvement, focuses on students developing responsibility for their own learning. For this to occur, a strategic plan, aligned to the school's goals and based on data, must be in place. Special educators, as well as classroom teachers, have opportunities to promote this principle through student-developed action plans.

At the beginning of the year, I administer formal assessments to each of my resource students. The results help me measure current academic performance in designated areas. Using this data, I hold conferences with the students to identify gaps between where they are and where they need to be, according to the School Improvement Plan and county expectations.

Together, we establish an annual long-term goal and short-term objectives for each marking period, based on the analysis of this information. Then we create an individualized action plan that encompasses the goal/objectives, actions that will be necessary to accomplish the goal, and tools needed to perform the actions. The students construct a line graph that will help them visually document progress.

At three-week intervals, we meet to discuss how the plan is proceeding, and, if necessary, make adjustments to our strategies. Every nine weeks (the length of the marking term), we assess the objectives by analyzing the most recent data, monitoring progress, making appropriate changes to the action plan, and updating information on the line graph. This evaluation process is repeated at the end of the year, with emphasis placed on determining if the long-term goal has been met.

Implementing this individual goal-setting strategy clearly defines what knowledge and skills students should have, while empowering them to become more responsible learners.

## Maryland's Teachers of the Year, 2001-2002

Welcome to this special edition of *Maryland Classroom*, dedicated to local school systems' Teachers of the Year and, thus, the official contenders for Maryland Teacher of the Year. The winner of the Maryland title (to be announced this month) will, this winter, compete for National Teacher of the Year.

We are delighted to honor these truly outstanding teachers and thank them for all they have done on behalf of their profession, their colleagues, their communities, and, most of all, their students.



**Elissa M. Streaker**  
English/Alternative Education & Service  
Learning Coordinator, Grades 9-12  
Gateway School  
Carroll County

## Fun with Problem-Solving



**Barbara Wallace**  
Mathematics Computer/Applications  
Bohemia Manor High School  
Cecil County

My philosophy is that all students need to become independent problem solvers. The activities on which I spend most time are games to help students become more comfortable with problem-solving skills. A few of my favorites are Bingo, Matching (concentration style), and "I Have, Who Has?" These individual or group activities allow students to reinforce skills and knowledge they already have in order to prepare them for problem solving that incorporates these skills.

"I Have, Who Has?" is a game where all class members are given cards prepared with equations or solutions. One student reads out an equation, for example,

"Who has  $3x + 5 = 14$ ?" Then, another student would call out, "I have  $x = 3$ ." Students continue in this fashion until all cards have been called.

Exploring number theory is an excellent way to begin a new unit. For example, fractional and negative exponents in algebra could easily be presented through a series of examples and notes on simplifying rules. I prefer to give students several expressions and have them simplify the problems in pairs, without any prior instruction. This allows them to make observations and conjectures about exponent rules. Students develop math concepts in their own words as opposed to being told the rules, which allows them to create a much deeper understanding. Experimentation and exploration are much more effective than notes and lectures any day.

## Parent Involvement Strategies



**Christa Taylor**  
Pre-Kindergarten-Early Childhood  
Princess Anne Primary School  
Somerset County

As a pre-K teacher, I place a lot of emphasis on parent involvement in the classroom. I strive to communicate with parents often and get them involved in their child's education, so that the first school experience is a positive one – for parents and students both. Following are a few tips I use to keep parents involved and informed.

- Make a phone call to all families on or before the first day of school to introduce yourself and share your goals for the school year.
- Ask parents to fill out a questionnaire at the beginning of the school year

to determine their goals for the year and their child's interests.

- Distribute a classroom volunteer form as school begins to enlist parent helpers. Include opportunities for parents to assist in the classroom, on field trips, or at home. Parents who work during the school day can create manipulatives and simple decorations for the classroom at night or on weekends.

- Post an information bulletin board in the classroom that apprises parents of upcoming classroom and school events. You may also include a Wishing Well to indicate items you need for the classroom. (Write each item on a Post It<sup>™</sup> note. A parent who wishes to donate the item removes the note to remind them-

## Teaching Social Skills with Service Learning

At-risk students are not unsuccessful because they lack *knowledge*. It is their lack of *social skills* that hampers their progress. At Gateway, Carroll County's alternative school, we've instituted Gateway Seminar, a class that teaches our students these skills.

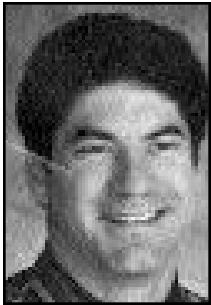
All students begin their day in Gateway Seminar. The curriculum includes group discussion of social situations, character education activities, and Service Learning.

After teaching several of these classes, I find Service Learning the most beneficial teaching strategy. Talking about respecting and helping others is too theoretical for many of our students. Service Learning provides them the opportunity to *experience* these concepts. Last year, my class of 12 boys chose to participate in *Harvest for the Hungry*, a state-sponsored canned food drive. They planned a competition among Seminar classes, with a pizza party as the prize for the class bringing in the most cans of food. Our school of 100 students donated more than 700 cans of food. Three classes shared the pizza party.

In the spring, our school participated in the *Maryland to Kenya Project*. Each Seminar class studied Kenya, and each contributed school supplies for Kenyan students. The classes raised money by collecting pennies in jars, and the one collecting the most money

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**Richard Sprecher**  
**Social Studies, Grades 6-8**  
**Col. E. Brooke Lee Middle School**  
**Montgomery County**

# Confucius Say. . .

I think the best way to make history interesting to young students is to make them active participants in the experience. The following lesson, one I've used with seventh graders, focuses on the teachings of Confucius.

## The Objectives

- Students will learn the basic teachings and tenets of Confucian Philosophy.
- Students will understand how Confucian Philosophy influenced China's culture and still does today.
- Students will be able to match Confucius' sayings with contemporary text.

- Students will demonstrate the ability to compare a Chinese approach to education with an American approach.
- Students will demonstrate through their writing an understanding of Confucian philosophy.

## The Scenario

I present the class with the following scenario:  
*Because students in America are misbehaving, the U.S. government asked the Chinese government to take over our schools and use Chinese methods of education. (Students in China achieve well and never misbehave.) Imagine you are now attending Confucius Middle School.*

I tell the class that, in Chinese schools, rote memorization is the primary teaching method as books are in short supply. I also tell them that independent thinking is discouraged. Students are expected to work as a group, think as a group, and never deviate from the group.

## The Rules

- You will show respect by standing and bowing whenever an adult enters the room. (As the lesson progresses, I ask a colleague to enter the room so the students will have to do so.)
- You will not stand or sit until given permission to do so.
- You will not speak unless spoken to.
- You will say my name followed by the word *Lau She* (a title of respect).
- You will sit still and erect in your chairs during the entire class period.
- If you are disobedient, you will be asked to sit away from the group – the most embarrassing thing that can happen to someone in China.
- When you raise your hand, you will keep your elbow on the table. You will not raise your hand in the air or make any

sounds or gestures that would call unnecessary attention to yourself.

## The Lessons

Next, I step out into the hallway and reenter wearing a robe and Chinese peasant hat. Naturally, all the students stand up and bow. I tell them to remain standing for our national anthem. Following the anthem, I lead them in Tai Chi exercises. I explain why Tai Chi is so important in Chinese culture (it fosters discipline and helps man find harmony with nature).

Following the exercise, we begin our first lesson – a lesson on the life of Confucius. I write some facts on the board, but rather than copying those facts, students repeat each line together as a class. The lesson is repeated aloud several times.

I then put some of Confucius' most famous proverbs on an overhead and tell the class to read them together. I ask one student to stand (and bow, saying, "Sprecher Lau She") and tell me the meaning of the proverb. Whenever students are correct, I tell them they've brought great honor to the class. They bow to me and I to them. Whenever students are incorrect, I tell them they've brought dishonor to the class and ask them to sit away from the group. (Students who laugh or make inappropriate comments during class are asked to do the same.) Halfway through class, we perform more Tai Chi.

Following the second set of exercises, I announce that it's time for a test. I give the students a list of Confucius' proverbs, while around the room, I tape proverbs translated into contemporary language. The students are to match each proverb with its modern counterpart.

We grade the tests together, and I announce that whoever earned 100% had shown him/herself to be a scholar who stood out from the group and was, therefore, entitled to a big reward. I ask those scholars to stand. When they do, I admonish them, saying, "I told you that you were going to have a test on Confucius' beliefs. Confucius believed in the power of the group – not the power of one. Whether you would stay seated and subordinate your need for individual recognition for that of the group was the real test. You obviously did not learn the beliefs of Confucius very well. All those who stood up have failed!"

## The Point

- I then ask students to discuss:
- what they experienced;
  - how it felt to simulate a Chinese classroom;
  - how the Chinese school experience is different than ours;
  - the benefits of Confucius' teachings;
  - the Confucian influences observed as the class was conducted;
  - whether this system would really work in the U.S.

I end the lesson by asking the students to write and share what a day at Confucius Middle School was like. I am able to assess students' understanding through their discussion and writing.

# It's the Real Thing



**Deborah Sheftz, Finalist**  
**Social Studies, Grades 8**  
**Southern Middle School**  
**Calvert County**

When I question middle school students about educational enjoyment, they often cite elementary school as the pinnacle of their learning fun, explaining that they did more "real" activities that provided motivating learning experiences. And so I have concluded that authenticity in the classroom is more likely to encourage kids to learn complex ideas and subjects.

For instance, when studying ancient China, we research and recreate recipes from different regions, enabling kids to study the physical geography of the area (Why are these ingredients available?); social classes (Who could eat these foods?); and trade (Are these ingredients indigenous to the area?).

When studying the Industrial Revolution, I separate students into a few skilled craftspeople vs. many factory workers, and then have them make an actual product. Students got first-hand experience of the Industrial Revolution's effect on quality and availability of products and the subsequent effect on cost.

During one exploration of the Middle Passage, we marked out on the floor the measurements correlating to the amount of room each slave would have beneath the decks. Students – randomly assigned the roles of slaves, slave owners, and slave traders (based on the color of paper picked at the start of class) – quickly learned the human cost of losing power and the cost of taking power from others.

Making history "real" for kids seems to be key to their grasping learning outcomes. However, teachers don't have to be the only ones making meaningful activities. Middle schoolers possess powerful creativity and imagination. With appropriate direction they, too, can create activities that address goals and objectives and put the fun back into learning.

# Vocabulary Strategies



**Hillary Sandberg, Finalist**  
**Grade 3**  
**Ilchester Elementary School**  
**Howard County**

These are just a few of the vocabulary strategies I use to introduce new vocabulary either for content, novel studies, or just for the sake of learning new words.

## I Spy

List all words on index cards or cut-outs. Spread the cards on the table or floor in front of the students. Say, "I spy a word that means [insert definition]." Students must grab the card they think fits the clue. If they are correct, they keep the card. If they are incorrect, they return the card to the table.

## Vocabulary Wheel

Create a large circle, divided into 10-12 sections, with a spinning arrow at its center. Laminate for reuse. Using a dry-erase marker, write a vocabulary word in each section of the wheel. Write each corresponding definition on an index card. Spin the wheel. The students must match the word on which the arrow lands with the definitions. This continues until all words have a definition matched.

## Word Puzzles

Write a vocabulary word on a piece of paper and cut it apart, letter by letter. Place the letters in a baggie. Write the word's definition on a piece of paper and place that in the baggie as well. Give students, working in

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Vocabulary Strategies

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pairs or threes, a number of baggies to open one at a time (so as not to confuse the letters). After reading the definition, they should manipulate the letters to form a vocabulary word that matches that definition.

Sock it to Me

Ask students to bring in an old (but preferably clean) sock. As they are reading a novel or anthology story, or learning content vocabulary, and come across an unfamiliar word, have them write it on an index card and place it in their sock. While students may never use a traditional word journal, the sock acts as a reminder that they have vocabulary words to look up.

Wrap-Ups

On a piece of poster board, list words on one side and their synonyms (or antonyms) on the other. Cut small triangular notches into the sides by the words and synonyms and attach a very long piece of yarn to the top of the board. Students take turns putting the yarn into a word notch and matching it to the notch for the corresponding synonym. When the students are finished, they check their work on the back of the poster board, where you've drawn the correct pattern.

Tic-Tac-Know

Give students a nine-square board and a choice of more than nine vocabulary words to place in the boxes, one in each. As you read the definition, students cover the corresponding word with a marker. When students believe they have three in a row, they say, "Tic-Tac-Know." Play continues if they have matched incorrectly.



Alberta C. Porter, Finalist Grade 3 Riverside Elementary School Harford County

Quilting

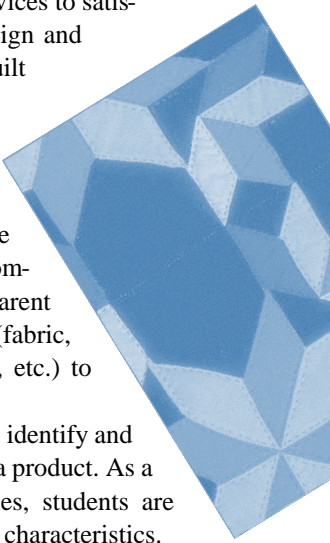
While engaged in the third-grade social studies unit, "People Together," students demonstrate an understanding of the status of economic principles and processes by identifying resources and making appropriate choices in order to function as consumers in a community.

First, students construct the meaning of community characteristics (recreation, businesses, education, representative groups of people, housing, and transportation). Then, to help them understand that resources are

used to produce various goods and services to satisfy consumers' wants, the students design and make community characteristic quilt panels.

Each student identifies a specific community characteristic, explains to their teams why the characteristic is important, and justifies the design they will use to represent the community characteristic. Helped by a parent volunteer, students choose resources (fabric, felt pieces, ribbons, buttons, patterns, etc.) to make their panels.

Once the panel is complete, students identify and categorize the resources used to make a product. As a result of applying economic principles, students are able to recall and describe community characteristics.



Parent Involvement

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selves of the purchase and to avoid duplication among parents.)

- Have children bring in pictures of their families, and post them around the classroom. Add to the display as the school year progresses.
- Recruit parents to donate film and to have film developed. Use the pictures for a class photo

album that the children take home (on a rotational basis) and share with their families.

- Send home a weekly newsletter describing upcoming classroom activities and school events. Include at-home teaching tips that support classroom activities so parents can reinforce concepts when you're not around. Use a VIP (Very Important Person) section to feature a different student each week. Showcase artwork in an Artist of the Week column.

The Learning Library

It's time for librarians to throw away the traditional notion of a school library and create a learning library instead. A quiet library is not a learning library. The media center I've designed is rarely quiet; it's more often full of life, with students engaged in all sorts of educational experiences, like literature circles, reading buddies, and hands-on lessons.

I conduct one of my favorite lessons with children at the beginning of the year when working on the parts of a book. Give each child a book – it doesn't matter if they are the same or not – and let them explore. Then name and show the parts. Give examples that relate to real life (e.g., "A cover is something you use in bed at night to snuggle up in and wrap around you, and a cover on a book works the same way.").

Show the spine and talk about how people have spines that hold them up and keep them together. Books have spines that do the same thing. Go over the title, author, and illustrator information on the cover and have them put their fingers on each item. Discuss what an author and an illustrator do for a book. Talk about which one students might like to be if they had a chance, and which one they think is the most important to a book. Have the students take sides on which is the more important role and make a list of reasons why they think so. (Even young students can benefit from learning how to take a stance on an issue and support it with facts.) Then have students design a cover for a book of their own, using their own name as author and a friend's as illustrator.

Whenever possible, tie your lessons into classroom topics and activities to support the classroom curriculum, while improving students' media skills.



Pamela Rubisch Library Media Specialist Conococheague Elementary School Washington County



Diane L. Krafty Math, Grades 9-12 Leonardtown High School St. Mary's County

Fiberglass Repair

Providing students hands-on experiences allows teachers to introduce and/or reinforce mathematical concepts in a non-threatening way. I developed this hands-on activity with the Engineering/Mechanical Technology teacher at James A. Forest Career & Technology Center to use with low-achieving math students. The project lasts five school days, and by the end, students are able to calculate the area of a flat surface, estimate the weight of a laminate, and calculate ratios.

To allow students to apply the activity's objective, some mathematical concepts have to be introduced first. I cover these concepts (writing ratios and using formulas to find the area of rectangles and triangles) in math class prior to the application. Then we proceed to James A. Forest Career & Technology Center to apply them.

Goal

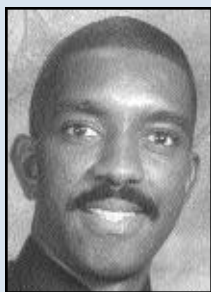
Calculate the amount of polyester resin and fiberglass reinforcement needed to laminate the decking of a boat.

Steps

- Take measurements and calculate the area of the boat deck.
- Weigh the materials needed for the job.
- Estimate how much laminate is necessary to complete the job.
- Given the desired fiberglass/resin ratio, calculate and mix the correct amount of epoxy needed for the laminate.
- Apply the resin to the fiberglass and allow it to cure.
- Weigh the combined fiberglass laminate.
- As there is a 10% waste factor on this type of repair, burn off the laminate to see how close the weight of the fiberglass came to this percentage. (Given an information fact sheet, the students were then able to calculate a glass/resin ratio.)
- Calculate the total cost of the repair job.

This is one of my favorite activities because it allows students to apply math to everyday life. The relevance of this activity lies in the fact that the majority of these students have fathers whose jobs as Chesapeake Bay watermen provide the primary household income. Therefore, boat repair is an absolute necessity.

Reading to be Informed



Maurice V. Parker  
Social Studies, Grade 8  
Nicholas Orem Middle School  
Prince George's County

Activity 1

Students will be able to demonstrate the ability to interpret, explain, and critique information after reading to be informed.

I give students 30 seconds to read a selected caption on the front page of the *Afro American* newspaper. When finished reading, students stand – without talking – until all students have stood (indicating they, too, have completed the reading).

I ask students to re-read the caption (for critique) and write down what they discovered wrong with it (critical stance). When time is up, I ask the first three students with hands raised to stand up and read what they have written. If it is correct, I reward the student(s).

Activity 2

I ask students to read (or I read aloud as students follow along silently) an article in the *Afro-American* entitled, “What If There Were No Black People in the World?”

We then re-read the article together, as I call on students individually to read aloud. After the second recitation, I give students 60 seconds to list 10 historical facts from the article.

When the 60 seconds are up, I ask the first student to have listed 10 facts to stand and read them. If the facts recited are mentioned in the article, and the student has recounted them correctly, I reward the student.

Writing Prompt

Using the 10 facts, students write a letter – consisting of two well-developed paragraphs of 4-6 sentences each – to their best friends, explaining what they learned in U.S. History that day.



Teaching Social Skills

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was promised free ice cream. But there was a twist! Pennies counted for the class, but other coins and bills counted against it. You can imagine my chagrin when someone put a \$5 bill in my class' penny jar. I think we all ended with a negative score, but we had a lot of fun!

Because of these and many other projects, Gateway was named a *National Service Learning Leader School*. When this was announced, several students' mouths dropped open. "But we're supposed to be the losers," one said. "Well, you're not!" replied his teacher.

Did I Make a Wise Investment?



Michelle A. Hrebik  
Math, Grade 6  
Berlin Intermediate School  
Worcester County

Students need to understand the connection between what they learn in the classroom and

how they can apply it in real life. One activity I use to do this also helps my sixth graders think about their futures. The project is called "Did I Make a Wise Investment?"

Through the project, students use their skills in multiplying, dividing, averaging, determining percentages, and converting fractions to decimals, percents to decimals, and fractions to percents to calculate their profit/loss on three stocks after three months.

I initiate this activity around the beginning of November and continue until the end of January. This way, students make predictions about the influence of holiday spending and end-of-year incentives on the price of their stocks. It's a great lesson about the fluctuation of the economy and its effect on stocks.

As an introduction, I invite my husband – a former trader on the New York Stock Exchange – to give an overview of the workings of stocks, how the prices are determined, and how they are traded. Using the Internet, the *New York Stock Exchange* newspaper, and the *Investor's Business Daily* newspaper, the students work in threes to research prospective companies and choose one stock each for their portfolio. Each group is given \$100,000 to invest in each of their stocks - \$300,000 total.

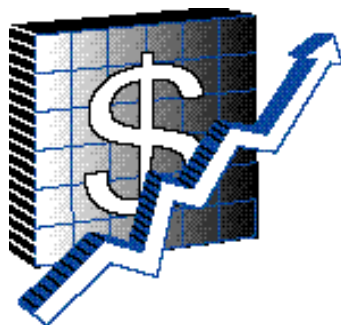
Twice a week, students receive a copy of the *Investor's Business Daily* (one is ordered for each group to use) and look up their stocks. They are taught how to read the financial section of newspapers and identify what each column of the stock report represents. Then they chart the name of each stock, its symbol, the amount of shares they purchased, the price per share, their portfolio value, the broker's fee, and their overall profit/loss. In addition, they graph their total portfolio value for each stock onto a triple-line graph.

At the end of the three months, each group calculates its overall profit/loss and

each member's profit/loss. They check if their predictions were correct and draw conclusions about their results, using statistics and business news to support their answers. Together, the group members present their project to the class, sharing what they have learned about their companies' stocks.

I have incorporated this activity into my classroom for the past two years and have received an overwhelming response from my students – and their parents. The students anxiously await the arrival of the newspaper so they can see how their stock is doing and compare graphs with other groups to determine the better investor.

Parents are amazed to see their children



checking the Internet for stock prices every day, or grabbing the financial section of the newspaper. Parents have even asked to sit in on the class so they, too, can become better educated about the stock market. Students have gone as far as persuading their parents to invest real money into their chosen stock, making them a "shareholder" in the company. Now that's bringing classroom learning to life!

Alternative Methods

For lower level students

- Pair them up with enrichment students.
- Reduce the number of stocks to choose.
- Provide them with "popular" companies they will recognize (Toys R Us, Pepsi, Nike).
- Allow them to use the computer to look up their stock prices.

For higher level students

- Have them track their stocks daily.
- Allow them to trade stocks after 1 month (adding broker's fees).
- Calculate percentage gain/loss.
- Peer tutor a group having difficulty.

Transforming the Learning Experience



Gene M. Paul  
Life Science, Grade 7  
Mount Savage School  
Allegheny County

Teachers occupy a critical role in young people's lives. We are in a key position to provide worthwhile life experiences. And by striving to create a positive, enthusiastic environment for learning, both the teacher and students can emerge as winners.

Because I believe we must encourage in students more critical thinking and better knowledge retention, I establish what students already know; create a list of what they need to know; develop activities and readings to accomplish the "need to know"; and ask students to generate a list of what they have learned.

To build students' knowledge, I make that knowledge real for them. For example, if I'm teaching the scientific method, I begin by using a problem to which students can relate – like how to extend a curfew.

I also use models. When teaching about the functions of red blood cells, I depict the cells as dump trucks hauling their loads to and from work sites. I find similes work well also. For instance, I compare the function of cell parts to human body parts (e.g., the lysosomes in the cell are like the digestive system in the human body). I then let students generate additional similes to further help them retain the information.

Keeping in mind that it is impossible to transfer any principle to students that we do not uphold ourselves, personal preparation for lessons is paramount. I make sure I know the material well, have a concise purpose, and am prepared to turn negatives into positives, obstacles into opportunities.

But, to me, the *most* important aspect of teaching is to show students that I care not only about their academic progress, but also about *them*. I do this by calling them by name when talking to them, asking about their other subjects, attending their ball games and social events they find important, and communicating with their parents.



Promoting Reading



Mary Ruth Higgs, *Finalist*  
Grade 1  
Greensboro Elementary School  
Caroline County

As a first-grade teacher, it is my job to teach my little ones to read and to kindle a lifelong love of reading. To me, this means not only reading during class time, but creating a reading environment at home as well.

Daily Book-Checks

A book-check involves a small amount of time spent reading with or to a family member each evening. Together, the readers fill out a simple form (date, title, author, pages read, signature) attached to the folder containing the book they have chosen to read. There is no punishment for not returning the book check – only positives for doing so. After five book checks, students receive a sticker for their personal charts. When their charts are filled, they get a reward (usually a bookmark or a dip into the "surprise drawer").

Before beginning book-checks, we offer parents workshops on responding to first graders as they are being read to, or as they attempt to read. We emphasize positive reinforcement and encourage them to create a special time and place to do their book-checks each evening. And we remind them that their child should find this a pleasant and successful experience, not a forced regimen of struggle and frustration. Book-checks should take no longer than 10 minutes. (Time well spent to create a lifelong love of reading!)

Many children do not have access to good, age-appropriate reading material at home, and many have never been read to on a routine basis. To address this issue, children get to choose a book from our classroom library to take home. I don't worry about readability, but do provide a variety of levels and genres of books. I also don't worry about losing books, as I keep accumulating more through yard sales, charities, grants, donations, and book club points.

Parents appreciate book-checks, as they provide very special family time together. In fact, many parents carry on the tradition long after their child has left my classroom.

Shared Reading Calendar

At the beginning of each month, I send home a Shared Reading Calendar listing each student's name. On the day a child's name appears, he/she becomes the "shared reader of the day." (Parents are invited to come listen to their child read on his/her special day.)

The reader is responsible for sharing with his/her classmates a special book or poem and is in charge of all questions before and after the presentation. Following the delivery, the reader's classmates give him/her "two stars and a wish." A star is a positive comment, and a wish pertains to his/her reading next time (e.g., *I wish you could read the story again, because I liked the pictures, or I wish you would turn the pages slower so I could see the pictures better.*).

Readers *must* be prepared, or their classmates will let them know. So they use their book-check time at home to practice. Their classmates become attentive, active listeners, and these habits carry over to other activities.

Early in the year, reluctant readers can choose to share with only the teacher, but seldom has this lasted for long. Readers may also choose another child as a helper in case their selections contain difficult words.



Getting Families Involved



Linda Eberhart, *Finalist*  
Math & Science, Grades 4-5  
Mt. Royal School  
Baltimore City

It takes an entire village to raise a child and help him or her achieve. This is especially true at Mount

Royal Elementary and Middle School in West Baltimore, where so many of our students come from single-parent homes and 80% are eligible for free school lunches.

At Mount Royal, we have met the challenge of bringing that village inside our doors and attracting capacity turnouts to school activities. And it does improve achievement! Our MSPAP scores have risen significantly since parents, grandparents, godparents, and even older siblings have joined students for *Family Math Nights* – and experienced first hand our multi-faceted approach to reinforcing basic skills.

Every *Family Math Night* has a theme, based on Maryland Learning Outcomes. On *Family Mystery Night*, participants assess clues to solve the Case of the Missing Teddy Bear. On *Probability Night*, they figure out the odds in competing for game prizes. On *Bubbles Night* – my favorite – families measure bubbles, compare bubble formulas for longevity, and compete to blow the biggest bubbles, using math and reasoning skills at stations around the school.

*Families* turn out for Family Math Nights because (a) they're fun and (b) students handle the recruiting. (And recruit they do. The 450 free tickets available for special events are typically gone within 24 hours.) *Students* turn out for Family Math Nights because (a) they're fun and (b) they know what to expect. (Students have already learned how to measure, make three-dimensional objects, find the mean, and read to follow directions.)

And what do families learn? They learn how reading, math, and science skills are applied in different settings. They learn how their children learn in the classroom – through theme-related interdisciplinary units.

Bubbles Night

On *Bubbles Night*, participants use rulers to decide winners of biggest bubble contests.

They experiment with various "recipes" to determine which makes the longest lasting bubbles. And they construct 3-D shapes to see how each is affected by blowing instruments.

But the favorite activity is "Swimming Pool Bubbles." Students read a task and, if they follow the directions carefully, are completely encircled in a huge bubble.

Materials

- 1 plastic wading pool about 3-4 feet in diameter
- 1 plastic hula hoop that will fit into the bottom of the pool, wrapped in string
- 1 plastic milk crate or box that will fit into the middle of the pool
- 1 old towel
- 1 roll of duct tape
- 3-4 gallons of bubble solution (or amount needed to fill pool until hula-hoop is immersed)
- Lots of newspaper
- Vinegar (When *Bubbles Night* is over, it's the best way to clean-up!)

Directions

1. Place the pool in an area that is away from drafts and allows plenty of room for the participants who will be standing in line for the activity.
2. Tape the crate to the center of the dry pool and cover it with a towel.
3. Fill the pool with bubble solution [about two inches deep].
4. Put the hula hoop in the pool.
5. Make sure the hula-hoop and your hands are wet with bubble solution. Wet the insides of the pool and the sides of the crate with solution.
6. Have participants step onto crate slowly. (They should keep their hands to their sides and not let their feet protrude over the edges of the box.)
7. Raise the hoop slowly. (If the sides of the soap cylinder pull inward and touch the person, you're going *too* slowly.)
9. After each participant has completed the activity, remove excess foam from the pool.

At the end of the evening, children take home Bubbles Performance Tasks to return for extra credit, and their families are invited to help. Students write great stories about "The Bubble Machine That Never Stopped," and pretend they're bubbles floating over all the regions of Maryland, describing what they see.

Best of all, the families enjoy and appreciate their children's academic achievements, and the children respond to that interest and approval.



Reinforcing Skills



Ieva Ersts  
Multi-age (Grades 1 and 2)  
Rock Hall Elementary School  
Kent County

My partner and I use the following ideas in our multi-age classroom to help first and second graders master and explore math, science, and social studies. The first two activities are a part of our morning routine. The third activity we use once a week every other year. These are not formal lessons; rather, they are quick activities that revisit important topics on a regular basis.

Temperature

To help children predict temperature, read a thermometer using both Fahrenheit and Celsius, and interpret collected data, we ask two children to take our classroom thermometer outside each morning. During the calendar activity, children predict that morning's temperature in either Fahrenheit or Celsius. The thermometer is then brought in and two helpers read the results. The temperatures are recorded on two graphs that can be used through the year to discuss seasonal differences, trends, and other related topics.

Tally Marks

To help children become comfortable using tally marks, we incorporate the following activity into our morning segment. In our room, we have a poster listing possible lunch choices (regular, hot dog, or packed). The children use a clothespin with their name on it and clip it to their choice. As soon as all children have completed their choices for the day, two helpers, using a white board, interpret that day's lunch choices in tally marks. They announce the results during calendar. If they wish, they may also include some word problems using their data. For example, "How many more people chose 'regular' than 'hot dogs'?" The children determine the question's difficulty level.

Countries

To help children get acquainted with the many different countries in the world, we use our rabbit, Felix. He has sweaters, hats, picnic dishes, toys, a notebook, and materials with which to make stationery or postcards.



The children are told that Felix is a rabbit who loves to travel all over the world and tell the class where he's been. Each Monday we draw a child's name out of a box. That child gets to take Felix home for the week and decides what country Felix will visit. He or she writes a short entry in the notebook about something interesting Felix has seen. The student also writes a letter from Felix to the class and may dress Felix in clothing appropriate for the country's climate. On the following Monday, the child shares Felix's adventures. By the end of the year, we've been all over the world!

All about Me



Kristen Canning  
Grade 1  
Brunswick Elementary School  
Frederick County

To help my students introduce themselves to me and to each other, and to get parents involved from the start, I conduct an autobiography writing project the first week of school. Each student's autobiography has four pages – My Family, My Friends, My Home, and My Talents. In school, we read books and poetry and complete shared writing activities on each topic. The children then complete the book page related to that topic for homework that evening. Students may write one or more sentences about the topic and include illustrations or photographs. The pages are bound together, and the kids share their book with the class in the Author's Chair. The books are then displayed at Back to School Night for the parents to see. We continue the autobiography theme with cookie glyphs made for Back to School Night.

The Autobiographical Cookie

Starting with a sugar cookie, tell students to use the topping ingredients appropriate to themselves.

<b>Face (frosting):</b> pink = girl      blue = boy	<b>Mouth (Red Hots):</b> use the number that shows how old you are
<b>Eyes (M&amp;Ms):</b> green = pets      red = no pets	<b>Nose (chip):</b> chocolate = have brothers or sisters peanut butter = no brothers or sisters
<b>Hair (licorice):</b> use as many pieces as there are people in your family	

Having the cookies and the autobiographies available at Back to School Night motivated kids to invite their parents, and attendance greatly increased!

A Recipe for Learning

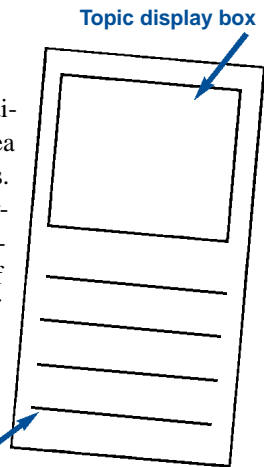


Ann Campbell  
Grade 2  
Sudlersville Elementary School  
Queen Anne's County

Teaching is a lot like collecting recipes. Over the years, you gather ideas from other people and possibly change them to fit your needs. Often you create an original recipe that yields positive results. Then you share that creation and the cycle continues. Your recipe box becomes a proven "teaching resource." A recipe I borrowed from someone a few years ago has proven a successful teaching jingle for our 2nd graders. The subtraction rhyme goes like this:

More on the top?  
No need to stop!  
More on the floor?  
Go next door, get 10 more!  
Number's the same?  
Zero's the game.

Another recipe is an original creation. Instead of the traditional prewriting "web," I sometimes use a prewriting "idea shopping list" to help students organize their thoughts. Students routinely see their parents' shopping lists for marketing and running errands, so they relate easily to the concept. It's also user-friendly and doesn't give the appearance of an extensive writing task while in the brainstorming stages of the writing process. I use a half sheet of paper to resemble a typical long shopping list.



Lines for thoughts and associations about the topic.



Stephen E. Cosner  
Electronics, Grades 10-12  
Southern Garrett High School  
Garrett County

The Student Tech Squad

With the expansion of computer technology in our school and county, we now not only have to keep this equipment running, we also must be prepared to help teachers use it. As an electronics teacher, a technology resource teacher, and the system administrator for the school network, I find most days I'm asked many technology-related questions well before I even make it to my room in the morning – by students and staff alike. So I've started using students as technology assistants throughout the build-

ing. Last year I created Southern Garrett's Student Tech Squad. The Squad is a select group of students available throughout the day to perform repairs on PCs, help teachers with individual lessons, or serve as guest lecturers, teaching lessons on various computer uses and strategies. I even had a couple of these students lead teachers' after-school professional development activities. The Squad is also responsible for building, updating, and installing new equipment throughout the school, and keeping the computer labs working. The students are available to the teachers on

a sign-out basis. Of course, while arrangements for technical assistance and classroom help are supposed to be made in advance, many times the students simply "come when called." I have found true excitement among the Squad members. They feel they're a part of the school outside of being students, and they take ownership of the equipment on which they work. It has been a tremendous asset to our school in many respects and has really helped my students grow – in their confidence, in their abilities, and in their people, troubleshooting, and customer service skills. The Squad has also facilitated the integration of technology into all classrooms throughout our school.



Let's Eat Some Plant Cells

It's been my experience that learning occurs best when it is active, hands-on, and – whenever possible – fun. To meet that goal, my students and I have destroyed a castle with a model catapult, erupted volcanoes, built a prairie dugout, and created an Aztec village. The following activity was used toward the culmination of a fifth-grade unit on cells and involves perhaps an even greater motivator than fun ... food!

Materials (per student)

- 1 cookie (large, round sugar cookies work well)
- 1 dab of white icing
- chocolate sprinkles
- 3 small chocolate chips
- 2 green Tic Tacs
- plastic knife

- 1 M&M
- small piece of licorice string
- tube of green icing
- plate

Directions

- Spread the icing on the cookie. Do not spread it all the way to the edge. The icing will become the cytoplasm, and the edge of the cookie will become the cell membrane.
- Put a line of green icing around the very edge of the cookie. This makes the cell wall.
- Place the M&M in the icing to become the nucleus.
- Carefully wrap the licorice around the M&M to make the nuclear membrane.
- Sprinkle the chocolate sprinkles in the icing to make the mitochondria.

- Place the chocolate chips in the icing to make the vacuoles.
- Place the Tic Tacs in the icing to make the chloroplasts.

The directions for making animal cells are the same, except that you'll leave out the Tic Tacs (chloroplasts) and the green icing (cell wall), as animal cells do not contain these parts.

Activities

- The students are given the directions for both cell types and are asked to choose one to make.
- Upon completion of the cell model, the students draw a diagram of their cell and label all the parts.
- They are also asked to explain in writing what parts (or lack of parts) make the cell identifiable as a plant or animal cell.



Kathy J. Burtman, *Finalist*  
Special Education, Grades K-5  
Sandy Hill Elementary School  
Dorchester County



Personal Responsibility

Mary Sue Brooks  
Pre-Kindergarten  
Indian Head Elementary School  
Charles County

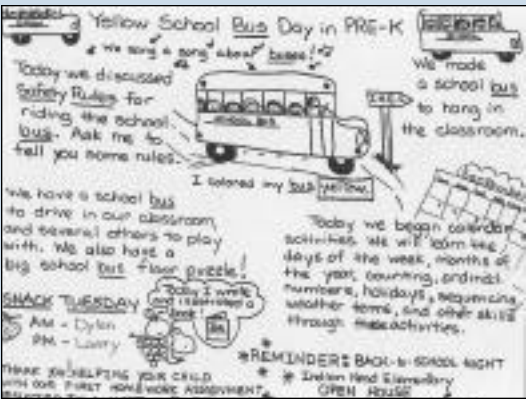
As a teacher of very young children, I look for ways to make the job of teaching personal responsibility as concrete as possible to help students understand the importance of this quality in themselves and others.

We have a "kindness board" in our classroom. Using the theme about which we're learning, each month we display random acts of kindness. Classmates or others who observe a student performing an unselfish act of kindness report these acts. (A student may not report his/her own acts.)

At the end of the month, the students whose names appear on the board are recognized at circle time. The recorded acts are placed in the student's portfolio to be shared with parents. When very young children see these acts displayed and recognized, they are motivated to be a part of the board.

Family Involvement

The home/school connection is a vital tool in bringing success to today's children just beginning their educational journey. So keeping parents involved in the day-to-day happenings in their child's classroom is very important. To keep the communication timely and ongoing, every day I send home a paper with each student called *My Day in Pre-K*. This paper relays to parents the day's happenings and informs them of upcoming



classroom and school activities.

*My Day in Pre-K* is handwritten and illustrated to attract the attention of parent and student. Feedback from parents has been great because this simple communication tool opens the post-school conversation between them and their child. They no longer hear "I don't remember," when they ask about their child's day in pre-K.

The Dice Game



Christina Blackman, *Finalist*  
Ages 3-21 (Special Education), Music  
Battle Monument School  
Baltimore County

This game was originally designed for classes of self-contained grade 1-5 students with special needs. In it, students participate either verbally, physically, or by using augmentative communication devices (ACDs) programmed with appropriate comments and requests. The game has been used to review songs and musical concepts, to practice syllabically dividing words, and to practice IMAP skills in participation, following directions, making requests, and matching.

Objectives

Grade 1 students with special needs will review and practice counting to 6, and use critical listening and communication

Prerequisite Skills and Experiences

- Students have practiced counting to six.
- Students have heard the six songs 18-25 times each.
- Students have experimented musically with discovering the number of syllables ("sounds") in their names and in familiar words.

Materials

- A large die, created out of heavy cardboard or foam (with sides approximately 10" x 10"), whose dots are large and easy for the whole class to see at once.
- One large card (at least 8"x10") for each side of the die. Each card depicts one side of the die and lists the corresponding song title (and picture symbol, if desired). For this particular activity, the six cards will be:
  - 1 dot (1 syllable) "Freeze"
  - 2 dots(2 syllables) "Bin-go"
  - 3 dots(3 syllables) "Clap Your Hands"

- 4 dots(4 syllables) "Skip to My Lou"
- 5 dots(5 syllables) "Hush Lit-tle Ba-by"
- 6 dots(6 syllables) "Go-ing on a Bear Hunt"
- A recording of each song (optional).

Game Description - One Round

Depending on class size, each round's segments can be done either by one student or shared by several.

Teacher will:	Student(s) will:
Tell the class that it's time to play the dice game and ask for a volunteer to roll first.	Request to roll the die verbally, physically, or using an augmentative communication device (ACD).
Give the die to the student (or place it on his/her tray).	Roll the die by either tossing it into the air or pushing it off his/her tray.
Ask student to count the number of dots on the top of the die (providing a verbal and/or physical prompt if necessary).	Count the dots verbally, physically, or by using an ACD.
Count the number of dots aloud with the class, holding up the die and pointing to the dots.	(same as above)
Show the student two or more cards and ask him/her to identify which card has the same number of dots as the die he/she rolled.	Identify verbally, physically, or with an ACD which card matches the number rolled.
Isolate the correct card, draw student's attention to the song picture/title, and (giving a keyword if necessary) ask him/her to identify the song.	Indicate verbally, physically, or with an ACD which song title is on the card.
Speak the song title slowly, pointing to the dots on the card or die. Ask how many syllables (or "sounds") the song title has.	Identify verbally, physically, or with an ACD the number of syllables in the song title.
Emphasize with the class the correlation between the number of dots on the card/die and the number of syllables ("sounds") in the song title.	Repeat song title and count to corresponding number verbally, physically, or with an ACD.
Lead students in the singing, acting out, and/or movements to the song.	Participate either verbally, physically, or with an ACD in the performance of the song.

Repeat the process until all numbers have been rolled and each song has been sung. If a student rolls a number that has already been rolled, he or she may roll again to get a new number.

Continued on page 8



Daniel A. Bieber  
Grade 5  
Tilghman Elementary School  
Talbot County

# The Hot Seat

The Hot Seat is a strategy that can be adapted to fit a number of different purposes, but I find it most useful when scoring writing pieces with students (limited writing, extended writing, and stance questions). The important part is that the writing piece be accompanied by a rubric that is familiar to students.

I warn users not to attempt this strategy until a strong classroom structure has been established – one in which students can work independently with purpose – because students in the Hot Seat will require all your attention. Arrange three students around a table and place yourself at the center. Each member of the group should have a copy of the rubric, his or her written work, and the stance question or prompt. Review the rubric with the students so they are aware of what they are listening for in their peers' writing.

The student in the Hot Seat reads his or her paper aloud, without interruption, while everyone else listens. Once finished, the reader scores his or her own work and provides very specific reasons for the score. Using the same format, the two peer listeners

then have a chance to state whether they agree. They each provide a score and detailed reasons for that score. Finally, you take a turn scoring the student's work. All comments should be based on the rubric and the criteria deemed important before the writing took place.

After a brief discussion has concluded and the student in the Hot Seat has no more questions, he or she is free to leave to correct the written work independently. The two remaining members of the group then shift over toward the Hot Seat, a new member is included at the end of the line, and the process is repeated.

This activity allows 5-15 minutes of quality small-group and individual instruction and teaches students the points they should look for in their own work as they conduct their self-assessments. The entire process can take as little as an hour or as long as three days to complete, depending on class size and students' understanding of the concept. Obviously, you'll want to move slowly when first introducing this concept to students and adapt the process to meet their needs and your style.



# Chrono-Battle

Anthony J. Berard  
U.S. History/AP U.S. History, Grade 11  
Glen Burnie High School  
Anne Arundel County

With the renewed emphasis on the importance of chronology, I find this game to be an easy and engaging way for students to review a sequence of historical events.

## Materials

- 15 index cards per student
- List of 50 events in chronological order

## Preparation

- Cut cards in half.
- Group students in pairs.
- Have students create decks by writing one event on each half-card (also include 10 jokers indicated by a large "X").

## Rules of Play

- Shuffle cards.
- Deal all cards face down to players.
- Each player throws down one card.
- The earliest event wins, except if played against a joker, which always wins.
- Continue throwing cards.
- In case of two jokers being played, each player throws 3 cards face down and 1 face up while saying, "I de-clare war."
- The player with the most cards at the end wins.

## Alternative Method

- Students are grouped into threes.
- Each player throws a card.

College Goal Sunday

On Sunday, February 10, 2002, the DE-DC-MD Association of Student Financial Aid Administrators, Inc., in cooperation with the Maryland Higher Education Commission, will host the first-ever College Goal Sunday.

College Goal Sunday is designed to help college-bound students complete the Free Application for Federal Student Aid (FAFSA), the financial-aid form required by most colleges, universities, and private career schools. Hundreds of counselors and thousands of students are expected to take part in 6-8 locations across Maryland. Free, professional assistance will be available to all who attend.

This event will be promoted to parents and students throughout the school year.

For more information, call

866-GO-2-GOAL

after October 1, 2001

## The Dice

Continued from page 7

### Assessment

#### Ongoing

- Observing how well students are able to count the dots, match them to the cards, and identify the number of syllables in the song titles
- Direct questioning

#### Formal


- Videotaping the activity for use in IMAP portfolios demonstrating active participation in a music activity
- Creating a written quiz where students are asked to match a song title with the number of dots that correspond to the number of syllables in the song's title

### Adaptations

- Use this strategy to accompany any end-of-the-unit review by creatively correlating the items for review with the numbers of dots on the dice.
- Have students think of words or phrases with the same number of syllables as the number rolled (words and phrases must be related to reviewed unit).
  - Review adjectives by requiring that students describe a selected item using the number of adjectives as indicated by the number rolled.
  - Review historical facts in order by recalling which happened first, second, etc., according to number rolled.
  - Review different songs in the same manner as described above.
  - Using the students seated at their desks as a sort of "game board," create a silly game piece that will travel from desk to desk according to the number rolled. A student rolls, the game piece moves, and the desk upon which it stops is the student who is asked the next review question. Points or prizes could be given to students for correct answers.
  - Use two dice, increasing the number of review items to 12.



Maryland

Classroom

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School and Community Outreach Office:  
Ronald Peiffer, Assistant State Superintendent  
Nan Mulqueen, Editor-in-Chief  
Philip S. Benzil, President, State Board of Education  
Nancy S. Grasmick, Secretary-Treasurer of the Board,  
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If you have any questions or comments about this publication, please contact Nan Mulqueen, editor, at 410-767-0475.